**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

WSOU INVESTMENTS, LLC D/B/A BRAZOS LICENSING AND DEVELOPMENT,	§ § § § § § § § § § § § § §	**CIVIL ACTION 6:20-CV-00480-ADA**
		CIVIL ACTION 6:20-CV-00481-ADA
		CIVIL ACTION 6:20-CV-00485-ADA
Plaintiff,		**CIVIL ACTION 6:20-CV-00486-ADA**
v.		**PATENT CASE**
DELL TECHNOLOGIES INC., DELL INC., EMC CORPORATION, AND VMWARE, INC.,		**JURY TRIAL DEMANDED**
Defendants.		

PLAINTIFF'S REPLY CLAIM CONSTRUCTION BRIEF

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I.   **U.S. Patent No. 7,092,360 (Case No. 6:20-cv-00486-ADA)**

   A. Dell fails to defend its departures from the plain and ordinary meaning

   1. **"said element comprises: an element for recording whether a queue is empty or occupied, an element for recording the [number of data cells/quantity of data] contained in a queue . . ." (claims 1, 26)**

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"said element includes all of: an element for recording whether a queue is empty or occupied, an element for recording the quantity of data contained in a queue, an element identifying a queue from which data is to be output, and an element identifying a group of queues from which data is to be output"

Regarding the relevant varying language of claims 1 and 26, which is expressed within brackets above, Dell states in its response that it "does not object to a construction that reflects the specific language of each claim." Dkt 82 at 3. In other words, "comprises" means "comprises," "an element for recording the number of data cells contained in a queue" means what it says, and "an element for recording the quantity of data contained in a queue" means what it says. This has been WSOU's consistent position—the plain and ordinary meaning should apply.

   2. **"predetermined state for said element" (claim 1); "expected state for said element" (claims 3, 26, 29); "expected status for said element" (claim 12, 24); "expected state of said first element" (claim 13, 37); "expected value of said parameter" (claim 18) "expected states for that element" (claim 21)**

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"a [state/value] for the [element/parameter] that would be expected if the scheduler is functioning properly"

Dell failed to appreciate, and hence offers no rebuttal to, why its proposed construction is presumptively incorrect for at least two independent reasons: (1) under the doctrine of claim differentiation (*e.g.*, as between claims 1 and 3); and (2) because it would impermissibly render superfluous recitations in claim 3. *Compare* Dkt. 80 at 3 *with* Dkt. 82 at 5. Claim 1 recites "a predetermined state for said element," without expressly tethering the "predetermined state" to any expectation concerning operation of the "scheduler" in general. Claim 3, by contrast, further recites an *additional* variation of the six disputed phrases in the context of "monitoring a parameter *relating to the operation of said scheduler*, and . . . determining an expected state for said element *based on said monitored parameter*." Claim 3 (which depends from claim 1) thus *adds* the

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requirements that the "expected state for said element" must be "based on" a monitored "parameter," which claim 3 expressly limits as "relating to the operation of said scheduler." In other words, claim 3 tethers its "expected state" to the "operation of said scheduler" by requiring the "expected state" to be "based on" a "parameter relating to the operation of said scheduler."

Because claim 3 expressly tethers its "expected state for said element" to "the operation of said scheduler" and claim 1 does _not_ so limit its "predetermined state for said element," it would be erroneous to universally limit _all_ the above six distinct phrases in terms of the condition "if the scheduler is functioning properly," as Dell erroneously proposes. Dkt. 80 at 3. Furthermore, the explicit tether in claim 3 of the "expected state" limitation to "the operation of said scheduler" would be rendered superfluous if, as Dell proposes, the mere recitation of "expected state" _itself_ exclusively refers to what "would be expected if the scheduler is functioning properly." _Id_.

Rather than address the above points, Dell incorrectly argues that the "expected state" recited in claim 3 "has nothing to do with, and has no effect on, the separately claimed 'parameter.'" Dkt. 82 at 5. Setting aside that Dell's response fails to rebut either presumption against Dell's construction, the claim language refutes Dell's mischaracterization. Claim 3 recites that the "expected state" must itself be "based on" a "parameter relating to the operation of said scheduler." This explicit "based on" requirement expressly interrelates the "expected state" with the monitored "parameter" and thus directly refutes Dell's "nothing to do with" interpretation.

Dell failed in its response to identify _any_ intrinsic evidence unambiguously requiring that each one of the six disputed terms above exclusively refers only to what "would be expected if the scheduler is functioning properly," as Dell proposes. That no such unambiguous requirement exists is underscored by certain counterexamples Dell overlooks. An example description of the rule checker 132 teaches comparing "the status of one or more elements of the scheduler" with "specific rules" (_e.g._, by using a "look-up table") and outputting the result of the comparison. '360 patent at 7:28-43. Absent from that example description is any reference to what "would be expected if the scheduler is functioning properly," much less any unambiguous disclaimer that _all_ rules applied by the rule checker 132 must _exclusively_ refer to such an expectation.

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The authority Dell cites (without explanation or parenthetical) only undermines Dell's attempt to import extraneous limitation from non-limiting embodiments. Dkt. 82 at 4 (citing *Homeland Housewares, LLC v. Whirlpool Corp.*, 865 F.3d 1372, 1377 (Fed. Cir. 2017)). In *Homeland*, the Federal Circuit (including even in the dissenting opinion) rejected the argument that "predetermined" should be limited by an example embodiment. *Homeland*, 865 F.3d at 1376 and n.3. While the Circuit acknowledged "the specification refers to an embodiment of the invention in which 'a predetermined settling speed' is empirically determined, the Circuit emphasized that the "claim language only requires 'a predetermined settling speed,' and does not require empirically determining a particular settling speed." *Id*. Here, the Court should reject Dell's similar attempt to import limitations from cherry-picked embodiments to unduly restrict the "predetermined" term of claim 1 and, by extension, the remainder of the six disputed terms.

3.   "computer generated model" (claims 1, 18, 21, 26, 44, 45)

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"a simulated computer model of circuitry describing a scheduler"

Dell failed in its response to meet its burden to identify *any* intrinsic evidence that unambiguously requires the extraneous limitations it seeks to add. *See* Dkt. 80 at 3-4 (collecting cases addressing this burden). Ignoring this burden, Dell attempts to justify its proposed rewrite by asserting that the claim language does not specify "***what the model represents***." Dkt. 82 at 5 (emphasis by Dell). At a minimum, Dell overlooks surrounding claim language, which limits the "model" in terms of what it must provide. For example, independent claims 1, 18, and 21 each expressly limit the "scheduler model" in terms of a requirement to "pass the status of said element to said monitor." '360 patent at 13:17-18. It is also significant that these three claims expressly modify the claimed "model" by a "scheduler" qualifier. *Id*. This refutes Dell's unfounded concern that, absent its impermissible rewrite, the term would encompass "even one unrelated to the recited 'scheduler'" (which Dell misrepresents as WSOU's alleged position). Dkt. 82 at 6.

Dell also opted to leave undisputed the observation that certain dependent claims defeat Dell's construction by reciting additional limitations directed to the "model" in question. Dkt. 80

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at 4. It remains undisputed, for example, that claim 44 defeats Dell's construction by reciting "[a] method as claimed in claim 26, wherein said computer generated model comprises a file containing a functional description of said element." '360 patent at 18:16-19 (claim 44). At a minimum, Dell failed to explain how "a file containing a *functional* description *of said element*," as recited in claim 44, must be limited, instead, to a *circuitry* description of a *scheduler in its entirety*. Moreover, the doctrine of claim differentiation gives rise to a presumption that claim 44 differs in scope from claim 45. Thus, the "model" further limited in claim 44 is presumptively <u>not</u> co-extensive in scope with "said computer generated model is described in a programming language from which the scheduler can be synthesized" (as recited in claim 45).

Claim differentiation also counsels against importing limitations from claim 45 into independent claim 26. The only difference between independent claim 26 and claim 45 (depending therefrom) is the additional requirement in claim 45 recited as "said computer generated model is described in a programming language from which the scheduler can be synthesized." This gives rise to an "especially strong" presumption against reading this additional limitation into claim 26. *SunRace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003). That Dell cited instances where the specification provides exemplary subject matter support *for what is additionally recited in claim 45* does not overcome the "especially strong" presumption against importation from a dependent claim into its independent claim. Dkt. 82 at 6-7.

B. The "means for" terms of claims 1 and 18

As the record reflects, WSOU has been forthcoming with its claim construction positions throughout the *Markman* process, including by explaining the basis for its positions during the meet and confer process for the disputed "means for" terms of claim 1 of the '360 patent. Mangrum Decl. ¶¶ 2-5; Dkt. 82-1 (Rosenthal Decl.) at ¶¶ 3-4. While WSOU had invited Dell during the *Markman* meet and confer process to identify any authority allegedly supporting a contrary position (Mangrum Decl. ¶ 5), Dell opted to not do so until the filing of its response brief.

Upon review of Dell's arguments in its response concerning *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1366 (Fed. Cir. 2008), *and* in further view of WSOU's recent participation in

other *Markman* proceedings before this Court, *and* with the aim to simplify the issues, WSOU is willing to agree, for purposes of this proceeding, that the disputed "means for" terms of claim 1 should be construed under § 112, ¶ 6. Accordingly, the tables below set forth WSOU's simplified positions for the disputed "means for" terms of claims 1 and 18.

    4.   **"detection means for detecting a state of an element of said scheduler" (claims 1, 18)**

WSOU's (revised) Position	Dell's Position
This term is subject to 35 U.S.C. § 112, ¶ 6. **Function**: detecting a state of an element of said scheduler. **Structure**: module 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, or 130.	This term is subject to 35 U.S.C. § 112, ¶ 6. **Function**: detecting a state of an element. **Structure**: modules 110, 112, 114 . . . to 130 using a programming language interface (PLI) as described in '360 patent at 12:11–41.

Because the specification discloses that *each* one of the modules 110, 112, 114, . . . to 130 provides means to detect a state of a *respective* element of the scheduler, each one should be construed as structure corresponding to the functional requirement "detecting a state of an element of said scheduler" (as recited in claims 1 and 18). *See, e.g.,* '360 patent at 6:62-7:28; *see also Micro Chemical, Inc. v. Great Plains Chemical Co., Inc.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) ("When multiple embodiments in the specification correspond to the claimed function, proper application of § 112, ¶ 6 generally reads the claim element to embrace each of those embodiments.")

Dell failed in its response brief to defend its attempt to further limit the corresponding structure for this term to *necessarily* require "using a programming language interface (PLI) as described in '360 patent at 12:11-41." Dkt. 80 at 5, 8. It is well established that "a court may not import into the claim structural limitations from the written description that are unnecessary to perform the claimed function." *Acromed Corp. v. Sofamor Danek Group*, 253 F.3d 1371, 1382 (Fed. Cir. 2001); *see also Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed. Cir. 1999) ("The statute does not permit . . . incorporation of structure from the written description beyond that necessary to perform the claimed function."). In addition, a court may not limit the corresponding structure to the structure found in a *single* embodiment of the invention when the written description discloses *multiple* embodiments. *See Micro Chemical,* 194 F.3d at 1252.

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Under this authority, which WSOU previously cited, Dell has failed to establish that use of a PLI is always "necessary" to perform the claimed function. Dell could not do so because the '360 patent teaches, in certain embodiments, that a programming language interface or "PLI" is *not required unless a particular condition applies*—i.e., "[i]f the monitor and scheduler are implemented using different programming languages." Dkt. 80 at 8 (quoting '360 patent at 7:58-63). The conditional "if" statement reveals that certain embodiments lack the condition—*e.g.*, where the monitor and scheduler are <u>not</u> implemented using different programming languages. *Id.* Given the claim language in question does not recite the existence of such a condition as an explicit requirement, it would be erroneous to include "using programming language interface (PLI)" as "necessary" corresponding structure for this term. *Acromed*, 253 F.3d at 1382; *Micro Chem.,* 194 F.3d at 1252, 1258. Dell's response brief offers no basis to conclude otherwise.

5.   "comparing means for comparing the detected state with a predetermined state for said element and for outputting the result of the comparison" (claim 1)

WSOU's (revised) Position	Dell's Position
This term is subject to 35 U.S.C. § 112, ¶ 6. **Function**: comparing the detected state with a predetermined state for said element and for outputting the result of the comparison.	
Structure: rule checker 132.	**Structure:** Indefinite.

Dell argues the "comparing means for" term of claim 1 is indefinite allegedly because "[t]he specification lacks *any* structure that performs the recited function." Dkt. 82 at 13 (emphasis added). Dell offers no evidence whatsoever to support its conclusory attorney argument. Dell thus fails to meet the exacting standard of proving indefiniteness by clear and convincing evidence. While the burden cannot properly be shifted to WSOU on this issue, a finding that *any* corresponding structure is disclosed (algorithmic or otherwise)[1] would render moot the sole undefended basis Dell offers for its conclusory "indefinite" interpretation.

The '360 patent discloses structure corresponding to the "comparing" functionality recited in claim 1 at least in example descriptions of the rule checker 132. For example, immediately after

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[1] Dell does not even attempt to establish in its response (and has therefore waived the argument) that a means-plus-function construction for this term would allegedly require *algorithmic* structure under *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1348–49 (Fed. Cir. 1999).

describing respective operations of each module 110-130 (at 6:62-7:28), which the parties agree discloses corresponding structure for the "detection means" term, the '360 patent states "[t]he rule checker 132 can receive information from one or more modules, for example, concerning the status of one or more elements of the scheduler and queue identifications contained within incoming and outgoing cells, and *compares* this information against specific rules contained in the set of rules 134." '360 patent at 7:31-36 (emphasis added). The rules 134 themselves are described as optionally having "the form of a look-up table." *Id.* at 7:31. The rule checker 132 is further described as being "adapted to output the result of the comparison for each rule tested, which may, for example, be provided to a user by any suitable means, for example, a visual display." *Id.* at 7:36-39. Example operations of rule checker 132 is still further described, in accordance with "one embodiment," as "output[ting] a result of the comparison only if a rule is violated or may be adapted to output the result of each test that is performed (i.e., whether the test is passed or failed)." *Id.* at 7:39-43. Figure 2 of the '360 patent represents the above example disclosure at least by illustrating modules 110-130 as providing information to rule checker 132 (as shown by the upward extending arrows) and by illustrating rule checker 132 as outputting a "RESULT" arrow.

In view of at least the above example disclosure, the Court should reject Dell's conclusory, undefended position that the specification is entirely void of *any* corresponding structure. *No evidence* supports Dell's theory, much less *clear and convincing* evidence. Rather, *all evidence* before the Court supports the presumption of definiteness.

6. "determining means for determining an expected value of said parameter based on the detected state of said element" (claim 18)

WSOU's (revised) Position	Dell's Position
This term is subject to 35 U.S.C. § 112, ¶ 6. **Function**: determining an expected value of said parameter based on the detected state of said element.	
Structure: operation(s) which apply one or more rules interrelating "the detected" state and the "expected value," as explained, for example, at 6:34-37, 6:45-58, and 9:12-11:60.	**Structure**: Indefinite.

Dell argues "[t]he parties' function identifications are materially the same for purposes of this analysis." Dkt. 82 at 14 n.11. But the parties' respective identification of function clearly

differs. Dell fails in its response brief to articulate a definitive position as to whether "based on the detected state of said element" should be given meaningful effect or not.

Dell's sole alleged basis for its indefiniteness challenge of this term is that "[t]he patent lacks any corresponding structure that performs the recited 'determining' function" ostensibly because "[i]n every single instance that the specification refers to this function, it merely refers to the function or a generic 'means' to perform it." Dkt. 82 at 14 (citing '360 patent at 2:60-62, 3:41-42).[2] The *four lines* of the specification Dell cites clearly do not account for "every instance" in which this term is addressed. Dell falls far short of raising clear and convincing evidence.

Dell overlooks, for example, the statement that "[t]he monitor 107 may include a rule specifying one or more status of a first scheduler element and the expected status for another scheduler element, based on each status of the first element, if the scheduler is operating as intended." '360 patent at 6:34-37; *see also id.* at 6:45-58. The term is further described elsewhere in the specification with reference to specific example embodiments, each including variations thereof, and each introduced with a respective heading. The specification introduces certain embodiments with an informative overview. *Id.* at 9:12-26. The specification goes on to explain "one example" application of a rule by the monitor where "the scheduler is intended to operate such that the current pointer and/or next pointer in each of the high and low priority queues only points to a queue status register indicating that a queue is occupied." *Id.* at 9:28-31. Various rules are described in this context, each of which may be used to determine an expected value based on a detected state. *Id.* at 9:31-54. The specification then addresses "another embodiment" where "according to scheduler operating rules, there should be an interdependence between the states of [a queue counter and one or more of the position(s) of a current pointer]." *Id.* at 9:57-63. Example variations are disclosed. *Id.* at 9:63-10:32. Still another embodiment is explained in the context of applying rules to determine an expected "next" pointer position based on a "current" pointer position. *Id.* at 10:33-63. Other embodiments are described in the context of a "Priority Selector

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[2] *See* note 1, *supra*, which also applies to this term.

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Status" (*e.g.*, 10:55-11:27) and "Scheduler Element Status and Output Cell" (*e.g.*, 11:29-60).

In view of at least the above example disclosure, the Court should reject Dell's conclusory and hyperbolic position that "[i]n every single instance that the specification refers to this function, it merely refers to the function or a generic 'means' to perform it." Dkt. 82 at 14. *No* evidence supports Dell's theory, much less clear and convincing evidence. *All* available evidence supports the presumption of definiteness.

C. Dell did not rebut the presumption against interpreting the disputed "element" terms under § 112, ¶ 6

7. "element for recording whether a queue is empty or occupied" (claim 1)

WSOU's (revised) Position	Dell's Position
No construction required apart from finding this term is **not** subject to 35 U.S.C. § 112, ¶ 6. Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then, **Function**: recording whether a queue is empty or occupied. **Structure**: data storage within a scheduler, such as, for example, queue status register 165, 167, 201, or 203.[3]	Subject to 35 U.S.C. § 112, ¶ 6. **Function**: recording whether a queue is empty or occupied. **Structure**: queue status register 165, 167, 201, or 203.

Dell has failed to meet its burden to rebut the presumption against applying a means-plus-function construction for the above term, which lacks the word "means." Dkt. 80 at 11-12. Tellingly, Dell's response does not dispute that "the presumption arising from the lack of the word 'means' is underscored here by the fact that certain other disputed terms of the '360 patent *do* recite 'means for' limitations." *Id*. (citing *Al-Site Corp. v. VSI Intern., Inc.,* 174 F.3d 1308, 1318-19 (Fed. Cir. 1999)). The caselaw Dell cites is distinguishable because the '360 patent does not use "element" as a "nonce" word. The '360 patent repeatedly and consistently refers to the claimed "element" as a *structural component* (of the *scheduler*) that serves as data storage for specific information, consistent with how this term is used in the claims. *See, e.g.*, '360 patent at Abstract; 2:65–3:4 (referring to "simulated circuit elements" of "a computer generated model of a scheduler"); 12:20-29 (disclosing "PLI tasks may specify the particular elements of the scheduler simulator"); 5:4-10 and 8:1-6 (describing queue status register registers 165, 167, 201, 203).

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[3] *See* note 1, *supra*, which also applies to this term.

Yet another presumption counseling against Dell's proposed construction is that it is unclear if Dell seeks to exclude *simulated* embodiments—*e.g.*, where the "element for recording" is implemented as a "simulated circuit element." '360 patent at 2:65–3:4; *see also, e.g., id*. at 4:7 and 12:20-29. That the claimed "element" of the scheduler encompasses simulations and need not be implemented in hardware as a *physical* register is a conceded point. Dell characterized the '360 patent as disclosing that "[t]he scheduler can be implemented either 'in hardware' or 'as a software model, before synthesis to silicon." Dkt. 80 at 1 (citing '360 patent at 1:33-36).

Dell's proposed means-plus-function construction is also presumptively incorrect because it would render superfluous certain claim recitations. For example, claim 8 recites (in pertinent part) "said first element comprises *a register* for recording . . . ." Reciting "register" as an *additional* limitation in the context of an "element for recording . . . empty or occupied" confirms to a person of ordinary skill in the art that an "element for recording whether a queue is empty or occupied" does not *necessarily* require a register.

8. **"element for recording the number of data cells contained in a queue" (claim 1, 20)**
9. **"element for recording the number of cells contained in a queue" (claim 9, 30, 35, 38)**
10. **"element for recording the quantity of data contained in a queue" (claim 26)**

WSOU's (revised) Position	Dell's Position
No construction required apart from finding this term is **not** subject to 35 U.S.C. § 112, ¶ 6. But if deemed subject to 35 U.S.C. § 112, ¶ 6, then, **Function**: recording the [quantity of data / number of cells / number of data cells] contained in a queue. **Structure**: data storage within a scheduler, such as, for example, counter 169, 205, or 207.[4]	Subject to 35 U.S.C. § 112, ¶ 6. **Function**: recording the [quantity of data/number of data cells] contained in a queue. **Structure**: counter 169, 205, or 207.

Even if the Court allows Dell to exceed the limit on the number of disputed terms, including by seeking to separately address the above three additional and distinct phrases (Dkt. 80 at 13), Dell has failed to overcome the multiple presumptions against its constructions, for reasons analogous to those presented above for the other "element" for term of claim 1. *See supra*, § I.C.7. For example, claim 8 also raises a presumption against Dell's construction as impermissibly

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[4] *See* note 1, *supra*, which also applies to this term.

rendering superfluous certain claim recitations. Claim 8 recites (in pertinent part) "said second element comprises a counter for recording the number of data cells stored in said queue." The recitation of "counter" as an *additional* limitation would be rendered superfluous under Dell's interpretation that "element for recording the number of data cells contained in a queue" already *necessarily* requires a "counter" as corresponding structure. In addition, as explained above (*id*.), Dell's construction is presumptively incorrect to the extent it seeks to exclude preferred *simulated* embodiments which do not necessarily use physical counters.

11. "an element identifying a queue from which data is to be output" (claims 1, 26)

WSOU's (revised) Position	Dell's Position
No construction required apart from finding this term is **not** subject to 35 U.S.C. § 112, ¶ 6. Alternatively, if deemed subject to 35 U.S.C. § 112, ¶ 6, then, **Function**: identifying a queue from which data is to be output. **Structure**: data storage within a scheduler, such as, for example, pointer 177, 179, 181, 183, 209, 211, 213, or 215.[5]	Subject to 35 U.S.C. § 112, ¶ 6. **Function**: identifying a queue from which data is to be output **Structure**: pointer 177, 179, 181, 183, 209, 211, 213, or 215

Even if the Court allows Dell to exceed the limit on disputed terms, Dell has failed to overcome the multiple presumptions against its means-plus-function construction, for reasons analogous to those presented above for the other "element" for term of claim 1 (*see supra*, § I.C.7). Dell's proposed constructions also risk excluding certain example embodiments, such as, for example, "one implementation" disclosing use of a "header" for "a queue identifier." '360 patent at 11:42-43. That the disputed term should be interpreted more broadly than the specific pointer embodiments Dell identified is also confirmed by dependent claim 27. Claim 27 *further* limits the disputed term (as recited in claim 26) with the additional requirement that it must "compris[e] one of a current pointer . . . and a next pointer." This claim differentiation gives rise to an especially strong presumption that claim 26 encompasses, but is not limited to, the disclosed pointers.

12. "element identifying a group of queues from which data is to be output" (claims 1, 26)

WSOU's (revised) Position	Dell's Position
No construction required apart from finding this term is **not** subject to 35 U.S.C. § 112, ¶ 6. But if deemed subject to 35 U.S.C. § 112, ¶ 6, then,	Subject to 35 U.S.C. § 112, ¶ 6. **Function**: [identifying/indicating] a group of queues, from which data is to be output.

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[5] *See* note 1, *supra*, which also applies to this term.

Function: identifying a queue from which data is to be output. **Structure**: priority selector 173 or 208.[6]	**Construction**: [identifying/indicating] a group of queues, i.e., high or low priority,[7] from which data is to be output. **Structure**: Indefinite.

Dell has failed to overcome the multiple presumptions against means-plus-function interpretation of the above term, for reasons analogous to those presented above. *Supra*, § I.C.7. If the Court finds this term is subject to 35 U.S.C. § 112, ¶ 6, however, then only WSOU has proposed a viable construction (in the alternative, as shown in the table above). Dell fails to prove indefiniteness by clear and convincing evidence under its incorrect means-plus-function construction. The sole basis Dell alleges for its indefiniteness challenge of this term is the attorney argument that "the patent discloses structure only for identifying a single queue 'from which data is to be output.'" Dtk. 82 at 19. Dell overlooks contrary relevant disclosure.

Among other relevant disclosure, the specification is replete with examples of operations directed to the priority selector 208 for identifying a group of queues from which data is to be output. For context, the '360 patent further discloses "FIG. 3A shows an example of queue status registers 201, 203 of high and low priority ***groups of queues***, respectively." '360 patent at 8:47-52 (emphasis added). "A priority selector 208 is also provided for selecting the 15 high or low priority ***queues*** for cell readout." *Id*. 8:14-15 (emphasis added). That the priority selector identifies a *group* of queues is explicitly disclosed, for example, by stating "if the priority selector selects the high priority ***queues*** for cell readout, a data cell will be read from queue number 1, the current pointer 209 moves to the position of the next pointer, i.e. to the register for queue number 4 and the next pointer 213 moves to the register of the next occupied queue, i.e. queue number 6." *Id*. at 8:47-52 (emphasis added). As another example, the specification discloses example operations where pointers may be used in connection with the priority selector to identify groups of queues. *Id*. at 10:43 ("the group of queues associated with that next pointer"). The '360 patent

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[6] *See* note 1, *supra*, which also applies to this term.

[7] Dell fails to defend its attempt to import either "high or low priority" as to sole possibilities for the claimed "group of queues" that may be identified. The intrinsic evidence contains no disclaimer unambiguously restricting this term in the manner Dell proposes.

further discloses example operations pertaining to the selection and hence identification of multiple queues with reference to selector 173 of Figure 1. *Id*. at 5:29-40. The patent further describes, for example, how the priority selector may be designed to identify which group of queues to service based on certain predetermined proportionalities. *Id*. at 11:15-27.

In view of at least the above example disclosure, the Court should reject Dell's conclusory, undefended position that the specification is entirely void of *any* corresponding structure. *No* evidence supports Dell's theory, much less clear and convincing evidence. *All* available evidence supports the presumption of definiteness.

II.   U.S. Patent No. 7,539,133 (Case No. 6:20-cv-00480-ADA)

1.   "whether a congestion condition exists [on/for] the egress node" (claims 1, 12, 13)

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"whether the egress node is currently congested"

Citing *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322 (Fed. Cir. 2009), Dell attempts to recast the dispute as whether use of "*i.e.*" signals lexicographic intent even in the context of an example embodiment. Dkt. 82 at 22. That is not the dispute. Rather, a fundamental problem with Dell's interpretation is that the alleged lexicography *pertains to something other than what is recited*. The statement from the specification provides the following: "[i]n one embodiment, the egress node congestion status provides an indication as to whether the egress node *currently* has a congestion condition (i.e., whether the egress node is *currently* congested)." '133 patent, 5:17-23 (emphasis added). That statement is not lexicographic *for the disputed claim language* because the statement includes an extraneous "currently" qualifier that is *not* recited in the claim language, followed by an "*i.e.*" parenthetical that restates what the *unrecited* "currently" qualifier means *in the context of that embodiment*. The absence of the same "currently" qualifier in the claim language in question only underscores the error in importing from the specification.

2.   "processing the packets" (claims 1, 12, and 13)

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"modifying, at the ingress node, the queuing priority of packets destined for the egress node"

Dell purports to justify its acknowledged importation of extraneous limitations from the specification, which are not recited in the claim language itself, by pointing to instances where the specification references "the present invention." Dkt. 83 at 23. Contrary to Dell's suggestion, there is no uniform rule that every reference to "the present invention" should be read as a limitation of the scope of the invention. *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1136 (Fed. Cir. 2011) (citing cases). Statements about "the present invention" should be read in the full context of the specification. *Id.* Such statements are not limiting, for example, where the specification clearly indicates the feature in question is a feature of only certain embodiments. *Id.* (citing *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1326 (Fed. Cir. 2008)).

The block quotation Dell asserts as allegedly compelling its construction in fact refutes it. Dkt. 82 at 23 (quoting '133 patent,   2:48-59). That passage makes express distinction at least between "modifying queuing priority of the packet" and, instead, "dropping the packet at the ingress node." *Id.* This counterexample clearly indicates that "processing the packets" does not necessarily require "modifying queuing priority of packets," as Dell proposes. Even when further describing a non-limiting embodiment optionally involving queue priority modification, the specification discloses such example processing may still involve determining *whether* to modify. *See*, *e.g.*, '133 patent,   6:54-59. This further confirms that the claimed "processing" does not necessarily require "modifying, at the ingress node . . . ," as Dell proposes.

That "processing the packets" must be read more broadly than Dell proposes is also confirmed by the claims. Claim 4, which depends directly from claim 1, recites "wherein processing at least a portion of the packets comprises: dropping the packets associated with egress nodes for which the congestion condition exists." Claim 5 is differentiated from claims 1 *and* 4 in that it recites "wherein processing the packets comprises: assigning the packets associated with egress nodes for which the congestion condition exists a lower queuing priority within the load-balancing network than the packets associated with egress nodes for which the congestion condition does not exist." That claim 5 does not recite its "assigning" as either "*re*assigning" or "modifying" further confirms claim scope should not be so limited.

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Dell's argument that "processing the packets" must be executed by "the ingress node" primarily relies on its "present invention" theory, which is rebutted above. Dell also points to the recitation in claim 1, "determining an egress node associated with each of a plurality of packets of a traffic flow received at an ingress node." This language pertains to a *distinct* step of claim 1. It does not expressly limit where the claimed "processing" must occur. Furthermore, the specification discloses the "processing" may occur at *intermediate* nodes, such as by deciding whether to drop packets in response to a packet drop condition. *See*, *e.g.*, *id*. at 6:60-65.

3. "such that packets … have a different queuing priority …" (claims 1, 12, and 13)

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"packets are marked depending on whether they are destined for a congested egress node, such that marked packets have a different probability of being dropped"

Dell fails to overcome the "especially strong" presumption arising under the doctrine of claim differentiation. *SunRace*, 336 F.3d at 1303; Dkt. 80 at 20. That claim 1 must be considered broader than what Dell proposes is confirmed at least by multiple claims depending therefrom, which recite as *additional* limitations the subject matter Dell seeks to import into claim 1. *Id*. For example, claim 6 recites "marking" limitations as *additional* requirements for the "queueing priority" limitations. As another example, claim 4 *adds* limitations directed to "dropping packets" in accordance with how they are processed. Dell has not rebutted the presumption by citing to *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1238 (Fed. Cir. 2016). That distinguishable opinion addressed whether a claim construction would render two *independent* claims co-extensive in scope. Here, the doctrine arises under the distinguishable context (addressed in *Sunrace*) of limitations in dependent claims that cannot properly be imported into their independent claim.

4. "means for determining, for each packet, whether …" (claim 12)

WSOU's Position	Dell's Position
This term is subject to 35 U.S.C. § 112, ¶ 6. **Function**: determining, for each packet, whether a congestion condition exists on the egress node.	
Structure: processor 210 performing operations at '133 patent, 5:11-20.	**Structure**: Indefinite.

As shown above, the parties agree that this term is subject to means-plus-function

construction under 35 U.S.C. § 112, ¶ 6, and further agree as to the functional requirement. Dell argues the term is indefinite because the only "corresponding device" is a "general purpose microprocessor" processor and the specification allegedly lacks disclosure of algorithmic structure for that processor to execute. Dtk. 82 at 27. Dell ignores that it had proposed a construction, for the term WSOU had believed to be in dispute, in which Dell identified the "processor 210" as corresponding structure, without further identifying *any* corresponding algorithm for that processor 210 to execute. Dkt. 80 at 20-21. Dell fails to explain its inconsistent interpretations that "means for determining an agrees node . . ." (also recited in claim 12) does *not* require corresponding algorithmic structure, but the above "means for determining . . ." somehow does.

In any event, sufficient algorithmic structure is disclosed, and Dell has failed to prove otherwise *by clear and convincing evidence*. The specification teaches, for example, that "[t]he node congestion information is determined *using information distributed by load-balancing nodes* (e.g., messages indicating existence of a congestion condition on the load-balancing node)." '133 patent,   3:3-6; *see also id*. Fig. 3, step 308. Corresponding algorithmic structure is described, according to one embodiment, at least in operations in which (1) processor 210 "queries switch 230" or "queries one or more routing tables associated with switch 230" to "determine the egress node of the packet" and (2) "[u]sing the identified egress node associated with the packet," processor 210 "determines the egress node congestion status associated with the identified egress node." *Id*. at 5:11-20. The congestion status information is itself described, for example, as being storable and/or retrievable by processor 210. *Id*. at 5:39-51. Examples of its generation are also provided. *Id*. at 5:65–6:12. Dell's conclusory assertion of no structure whatsoever falls flat.

5.   "means for processing the packets such that . . . " (claim 12)

WSOU's (revised) Position	Dell's Position
This term is subject to 35 U.S.C. § 112, ¶ 6. **Function:** processing the packets such that packets associated with egress nodes for which the congestion condition does not exist have a different queuing priority within the load-balancing network than packets associated with egress nodes for which the congestion condition exists.	
Structure: processor 210 which marks packets in a manner that differentiates queuing priority based on whether the packets are associated with egress	**Structure**: processor 210 which marks the packets such that marked packets have a different probability of being

nodes for which the congestion condition exists.	dropped than unmarked packets.

While WSOU stands by its position for the above term as set forth in its opening brief, WSOU has modified its proposed construction to simplify the dispute. Dell errs in limiting "queuing priority" to a probability of being dropped. The specification does not unambiguously disclaim "queuing priority" in this way. On the contrary, the description of step 310 (at 9:51–10:2) provides an example of "processing the packets" in terms of marking, without mentioning (much less *unambiguously requiring*) the extraneous "such that" clause Dell seeks to add.

III.   **U.S. Patent No. 7,636,309 (Case No. 6:20-cv-00485-ADA)**

  1. **"split ratio vector" (claims 1, 11, 16)**

WSOU's Position	Dell's Position
the proportion of the flow routed in each path **[agreed]**	

Dell appears to acknowledge in its response brief that the "split ratio term" encompasses a path specific interpretation, such that two given paths may have respective flow proportions that differ from one another. Dkt. 82 at 31-32. Provided the parties are agreed in this understanding, WSOU does not object to adopting verbatim the statement that "[a] split ratio vector of a flow is defined as the proportion of the flow routed in each path." '309 patent at 3:48-49.

IV.   **U.S. Patent No. 9,164,800 (Case No. 6:20-cv-00481-ADA)**

  1. **"latency cost" (claims 1, 13)**

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"communication delay between a compute node and a data node"

Contrary to what Dell suggests, WSOU disputes that "latency cost" refers exclusively to communication delay. *Cf.* Dkt. 82 at 33. While certain embodiments disclose that communication delay may contribute to latency cost, the specification also describes latency cost in terms of "the amount of data to be processed, thereby accounting for increased network traffic due to a higher volume of data." '800 patent at 6:54-57. It is possible, therefore, for latency cost to be *high* (*e.g.*, due to substantial increased traffic) even if communication delay is *low*. This is not reflected in Dell's construction, which seeks to import limitations from a non-limiting example embodiment.

Dell compounds its error in suggesting "latency cost" should be limited exclusively to delay "between a compute node and a data node." It remains undisputed that "the specification

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expressly contemplates 'communication latency between data nodes and compute nodes *or between multiple computer nodes cooperating to perform a processing task*.'"   Dkt. 80 at 25 (collecting citations). Unable to identify any disclaimer, Dell suggests its construction is required by the surrounding context in the claim language. But that context speaks for itself, has not been identified for construction, and does not expressly limit "latency cost" in the manner Dell proposes. Moreover, the "latency cost" term is recited as "being used in obtaining a set of assignments by applying an algorithm." Nothing in the claim language precludes the "set of assignments" obtained "by applying an algorithm" from pertaining, for example, to "multiple computer nodes cooperating to perform a processing task," as disclosed in the '800 patent (at 1:37−41; *see also* 8:10-12).

2.   "[determining/determine] an assignment objective" (claims 1, 13)

WSOU's Position	Dell's Position
Plain and ordinary meaning.	"select[ing] one of a plurality of assignment objectives"

Dell asserts prosecution disclaimer compels its proposed construction. Dkt. 82 at 35. According to Dell, the specification discloses only two alternative embodiments, which Dell characterizes as *either* (1) "select[ing] one of a plurality of assignment objectives" (using quotations to indicate Dell's construction) *or* (2) where "only a single objective" is unconditionally applied (the allegedly disclaimed embodiment disclosed at 8:31-34). Regardless of whether prosecution disclaimer applies to the one embodiment Dell identified, Dell misinterprets the specification as only disclosing two alternative embodiments. At a minimum, Dell overlooks that the specification discloses relevant embodiments outside the context of *selecting*. Dkt. 80 at 26-27 (quoting '800 pat. at 8:21-34). In other words, the specification makes clear that "determining" is not limited to "selecting" in all instances, much less selecting but *one* of a *plurality*, as Dell proposes.   Even in differentiating the embodiment where "only a single objective" is *unconditionally* applied (8:31-34), from an alternative embodiment which "automatically select[s] an objective *based on network conditions*" (8:29-31), the latter is not limited to selecting one of a plurality of assignment objectives. *Id*. Nothing in that alternative "network conditions" embodiment, which Dell has not alleged is disclaimed, precludes the scenario where the

determination involves confirming if "network conditions" are satisfied for a singular assignment objective that is *only conditionally applied* as part of a determining operation.

Dell opted to not even take a position in its response brief as to whether its proposed construction "would newly require that each one of the unrecited 'plurality of assignment objectives' would necessarily have to satisfy this 'based on' requirement or, instead, only the determined one of the unrecited 'plurality' would need to do so." Dkt. 80 at 28. Dell's failure to defend its construction against such ambiguity is itself telling and dispositive.

Compounding its error, Dell fails to defend its apparent attempt to limit the claim language to selecting only "one" of allegedly multiple assignment objectives. Not only is such an interpretation presumptively incorrect,[8] the specification refutes it. For example, the specification discloses "the cloud controller 120 may also consider one *or more* optimization constraints, or 'assignment objectives[.]'" '800 patent at 7:10-11 (emphasis added); *see also id*. at 14:45-48.

V.   Dell's attack on the integrity of Plaintiff's counsel is baseless

It is not well taken that Dell's response brief attacks the personal integrity of counsel for WSOU. Dkt. 82 at 10. In particular, Dell demands that WSOU "correct" the allegedly "false" statement offered in WSOU's opening brief that "Dell admitted through counsel (during a telephonic meet and confer) that the specification discloses a 'monitor' as structure corresponding to the 'detecting a state of an element of said scheduler.'" Dkt. 82 at 10 n.7 (quoting Dkt. 80 at 7). That statement in the opening brief accurately reflects a response Dell's counsel offered to a specific question asked during a *Markman* meet and confer. Mangrum Decl. ¶¶ 2-5. However, because WSOU recognizes that reasonable minds may disagree as to the legal significance of a party statement, and that respective recollections of an unrecorded conference call may reasonably diverge, WSOU does not reply in kind with an *ad hominem* attack.

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[8] *See KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1355 (Fed. Cir. 2000) ("This court has repeatedly emphasized that an indefinite article 'a' or 'an' in patent parlance carries the meaning of 'one or more.'")

Dated: March 31, 2021   Respectfully submitted,

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CERTIFICATE OF SERVICE

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      A true and correct copy of the foregoing instrument was served or delivered electronically via the U.S. District Court [LIVE]-Document Filing System to all counsel of record on March 31, 2021.

                                        /s/ Ryan Loveless
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